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			Group Art Unit	1774		
			Examiner Name	Dawn L. Garrett		
Total Number of Pages in This S	ubmission	4	Attorney Docket Number	740756-2684		
ENCLOSURES (check all that apply)						
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Fee Attached			(s)  ion and Power of Attorney	Appeal Communication to Board of Appeals and Interferences		
Amendment/Reply				Appeal Communication to Group (Appeal Natice, Brief, Reply Brief)		
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JUN 27 2006

Docket No. 740756-2684

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:		Confirmation No.: 3635
Atsushi TOKUDA et al.	)	
Serial No. 10/735,732	)	Examiner: Dawn L. Garrett
Filed: December 16, 2003	)	Group Art Unit: 1774
For: LIGHT EMITTING DEVICE AND A	)	
METHOD OF MANUFACTURING THEREOF	)	Date: June 27, 2006

## REQUEST FOR RECONSIDERATION

MAIL STOP AMENDMENT Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated March 27, 2006, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims.

In section 4, starting on page 2, claims 1-7 and 13-15 are rejected under 35 U.S.C. § 102(e) as allegedly anticipated by or, in the alternative, under 35 U.S.C. § 103 as allegedly obvious over Heuer et al. (U.S. Patent No. 6,368,731); and in section 7 starting on page 4, claims 1-7 and 13-15 also are rejected under 35 U.S.C. § 103 as allegedly obvious over Heuer et al. in view of R. L. Lidberg et al., "Optical and Electrical Properties of Doped Poly-3-Octylthiophene Films (hereinafter, "Lidberg et al."). These rejections are respectfully traversed, as neither Heuer et al. nor Lidberg et al. teach or suggest each and every feature set forth in the pending claims, and there is no motivation present within these documents to combine their respective teachings as suggested by the Office.

For example, the present application describes problems associated with a type of EL element having a hole injecting layer comprising a mixture of a conjugate polymer and a strong acid. For instance, a thin film and an anode such as indium-tin oxide (ITO) that come into contact with the hole injecting layer are likely to be largely damaged because of the strong acid.

To reduce the damage, the present application describes forming a hole injection layer

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provided in contact with an anode (e.g., ITO) by doping an electron-accepting organic compound in a conjugate polymer to oxidize the conjugate polymer. These features are broadly encompassed by the subject matter set forth in Applicants' independent claim I, which recites, among other features, "a hole injecting layer that comes into contact with the anode and disposed between the anode and the cathode ... wherein the hole injecting layer is made of a conjugate polymer that is soluble in an organic solvent and has been oxidized by an electron-accepting organic compound."

While the Heuer et al. patent describes a hole injection zone including a cationic polythiophene, it does not appear to describe or suggest a hole injection layer oxidized by an electron-accepting organic compound. Moreover, Heuer et al. does not suggest that an organic compound electron acceptor is used in a hole injection layer to reduce the damage of a thin film and an anode as discussed above.

The Lidberg et al. document describes that conjugated polymers have received considerable attention over the last decade because of their interesting and useful electrical properties. Further, Lidberg et al. describes that various applications of  $\pi$ -conjugated polymers that take advantage of these physical properties have been demonstrated including light-emitting diodes (LEDs), batteries, nanowires, and chemical sensors. However, Lidberg et al. does not teach or suggest providing the  $\pi$ -conjugated polymers in contact with a anode (e.g. ITO) of an EL device, as claimed. Also, the Lidberg et al. document does not suggest reducing damage of the anode (e.g., ITO) and a thin film by using an organic compound electron acceptor.

It is respectfully submitted that the motivation provided by the Office for altering the Heuer et al. reference in view of the teachings of the Lidberg et al. is too general, and thus not relevant to the specific limitations recited. As such, Applicants submit that the motivation provided in the action was arrived at only after first viewing Applicants' own disclosure. However, such hindsight reasoning resulting from the Office using Applicants' claims as a laundry list to gather the various claim elements is impermissible and cannot be used to establish a prima facie case. In contrast, the Applicants have discovered that doping an electron-accepting organic compound that does not contain an acid component in a conjugate polymer to oxidize the polymer results in a hole injection layer that suppresses damage to an anode and an thin film formed thereon. The applied prior art does not suggest claimed

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features relating to an electron-accepting organic compound in a hole injection layer, in the context of the other features recited in claim 1, nor does it contemplate the advantageous features, described above, resulting therefrom.

The Office Action also includes a rejection of claims 8-11 under 35 U.S.C. § 103 as allegedly being obvious over the Heuer et al. patent in view of Yang et al. (U.S. Patent No. 5,723,873); a rejection of claim 12 under 35 U.S.C. § 103 as allegedly being obvious over Heuer et al. in view of Ara (U.S. Patent No. 6,613,454); and a rejection of claims 8-11 under 35 U.S.C. § 103 as allegedly being obvious over Heuer et al. in view of the Lidberg et al. article, and further in view of Yang et al. However, each of claims 8-12 depend from claim 1 and it is respectfully submitted that neither Yang et al. nor Ara, whether taken alone or in combination with Heuer et al. and Lidberg et al., would have taught or suggest the claimed combination of features including "wherein the hole injecting layer is made of a conjugate polymer that is soluble in an organic solvent and has been oxidized by an electron-accepting organic compound," as set forth in Applicants' claim 1. Accordingly, the Yang et al. and Ara documents fail to remedy the deficiencies pointed above with respect the Heuer et al. patent and Lidberg et al. document. Additionally, the dependent claims recite additional features defining combinations including further points of distinction.

For at least these reasons. Applicants respectfully request that the Office reconsider and withdraw all pending rejections under Sections 102 and 103 based on the Heuer et al., Yang et al. Ara and Lidberg et al. documents.

Based on the foregoing, the present application is believed to be in condition for allowance. Prompt notification of the same is earnestly sought.

Respectfully submitted,

Registration No. 47,248

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